Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

The mammals collected comprise four species of seals (Weddell's Seal, the White Seal, Ross's Seal and the Seal-leopard). There are twenty-four species of birds, including three penguins, eleven petrels, five albatrosses, four terns and gulls, and a cormorant. None of the birds and mammals are new to science. As would be expected, the collections of fishes and invertebrates present a number of hitherto unknown forms. There are eight new species of fishes and three new genera, four new Tunicates, fifteen new mollusks, two insects, one mite, fourteen Crustaceans, three Polychaeta, one Polyzoon, one Alcyonarian, and two sea-anemones, making a total of forty-three new species. Both these and the collections of the known forms show that the Antarctic fauna is singularly poor in species. Nor are any of the forms of a striking or remarkable character, with the possible exception of the penguins, a few of the crustaceans, like *Paratanais antarctica*, and the two sea-anemones (*Urticina sulcata* and *U. carlgreni*), which have brood-pouches for their eggs. These pouches are formed by invaginations of the outside body-wall, and are known to occur only in sea-anemones from the Antarctic and Arctic regions. A similar condition is known to occur in Arctic and Antarctic Echinoderms. It has been suggested that the surface ice in the polar regions may be fatal to the free-swimming larvæ of sea-anemones and Echinoderms, so that the creatures have provided brood-pouches in which their young can develop directly, *i.e*, without a free larval stage.

The volume is provided with a series of fifty-three photolithographic plates illustrating the new and some of the already known species. The figures of the seals and penguins are especially interesting. The paper and press-work are excellent, but the binding is too weak. W. M. W.

A Monograph of the Tsetse-flies (Genus Glossina, Westwood) based on the Collection in the British Museum. By Ernest Edward Austen, with a Chapter on the Mouth-parts by H. J. Hansen, Ph.D. London, 1903.

The recent discovery that certain flies are carriers of disease has given a great impetus to monographic work on groups of two-winged insects that have long been neglected by systematic entomologists. The interest in malaria has called forth a superb monograph on the mosquitos of the world, published under the auspices of the British Museum. The same institution has now given us a companion volume on the Tsetse-flies, which have been shown by Surgeon-Major David Bruce to be the carriers of the Nagana disease of cattle, horses, mules, and donkeys in certain parts of Africa. Mr. Austen, the dipterologist of the British Museum, has brought together in this volume of 319 pages, illustrated by several clear text-figures and a series of nine excellent plates, literally all that is known about these interesting insects. The Tsetse-flies are allied to our common stable-fly, a gray, biting species often confounded with the common house-fly. Seven species of the Tsetse (Glossina) are carefully described. One of these (*G. pallidipes*) is new to science. As shown by a good map of their distribution, the insects are most prevalent along the water-courses of Africa. In these regions they occur in peculiar "fly-belts," the crossing of which is often attended by no little danger to the pack-animals. The reproduction of the Tsetse presents a curious phenomenon, hitherto known to occur only in certain flies (*Hippoboscidæ*), parasitic on birds and mammals. The Tsetse does not lay eggs like the vast majority of flies, but a single brown puparium. In other words, a single egg hatches within the reproductive organs of the parent fly, and there passes through its entire larval and incipient pupal stages, being in all probability nourished by certain glandular secretions. Thus the insect produces very few young, but these are not subjected to all the vicissitudes which decimate the much larger broods of ordinary flies. Mr. Austen has accumulated a vast amount of data on the habits and distribution of the Tsetse, as shown by his extracts from one hundred and seventy-four works by travellers and observers who treat more or less incidentally of the insect. He also appends a bibliography of thirty-four works that have already been written on the Nagana disease. This disease is produced by a blood-parasite (*Trypanosoma brucei*), belonging to the same group of microscopic organisms as the malarial *plasmodium. Glossina morsitans* is the species most concerned in the transmission of the Trypanosoma. The disease is most prevalent in "German East Africa, British East Africa, and Somaliland, on the east, and in the German protectorate of Togo on the west." It is probable, however, that the other species of Tsetse may carry the disease in the regions over which they occur. It has not yet been demonstrated that Nagana may not be carried by other blood-sucking flies besides Glossina (*e. g.*, *Tabanidæ*). Nor has it been possible to show that Nagana is identical with the disease known as Surra in India. The appendices to Mr. Austen's work contain, among much interesting matter, an excellent abstract of Surgeon-Major Bruce's report of the experiments by means of which he was able to demonstrate the true nature of the Tsetse-fly disease. A chapter on the anatomy of the mouth-parts of the insect, together with two plates, by Dr. H. J. Hansen, of Copenhagen, is included in the work.

W. M. W.

*Geology of Worcester, Mass.** This volume deals almost exclusively with the hard rock geology of Worcester and immediate vicinity, being based upon work done by Emerson and Perry for the U. S. Geological Survey. The selection of the material and its presentation are the work of Mr. Perry, and he has performed his task exceedingly well. Since the volume is intended, not for geologists, but for the people of Worcester, it is written in as untechnical language as possible. There are many excellent half tones of rock outcrops and hand specimens.

This publication speaks well for the energy of Mr. Perry and the broadmindness of the Worcester Natural History Society. Most such societies are content with mere existence, or, at best, with occasional meetings and the formation of a museum. The Worcester Society is setting before others an excellent example of what they may well do—namely, illustrate and explain to the people the natural history of their surroundings. This, of course, requires also the willingness of a member to do the work; and the Worcester Society is fortunate in having such a member as Mr. Perry.

R. S. T.

International Bibliography of Meteorology.—Volume F of the *International Catalogue of Scientific Literature* contains the titles in Meteorology (including Terrestrial Magnetism) for the year 1901. There are fifty-three pages in the authors' catalogue, and sixty-eight in the subject catalogue. "Climatology and Weather" occupy about twenty pages. The classification of climatology is into four heads—General, Agricultural, Phenological, and Hygienic. Under each of these subdivisions there is a classification by countries. The Bibliography is certain to be of great service to all working meteorologists and climatologists, albeit the first volume is singularly incomplete in giving no reference to the *Meteorologische Zeitschrift*, the leading meteorological journal of the world, nor to the *Sitzungsberichte* and *Denkschriften* of the Vienna Academy of Science, both of which publications frequently contain valuable monographs on meteorological and climatological subjects. R. De C. W.

---

* The Geology of Worcester, Massachusetts, by Joseph H. Perry and Benjamin K. Emerson. Published by the Worcester Natural History Society, Worcester, Mass., 1903.